

SEQUENCE LISTING

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Yamaguchi Kimura
Shingo Sekine
Kouju Kamata

<120> HUMAN GALECTIN-9-LIKE PROTEINS AND cDNAs ENCODING THESE PROTEINS

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<140> 09/485,951
<141> 2000-02-17

<150> 9-226468
<151> 1997-08-22

<150> PCT/JP98/03670
<151> 1998-08-19

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<170> PatentIn Ver. 2.0

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35 40 45

Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro

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Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65 70 75 80

Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
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Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val
100 105 110

Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe
115 120 125

His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr
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Ile Ser Phe Gln Asn Pro Arg Thr Val Pro Val Gln Pro Ala Phe Ser
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Thr Val Pro Phe Ser Gln Pro Val Cys Phe Pro Pro Arg Pro Arg Gly
165 170 175

Arg Arg Gln Lys Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile
180 185 190

Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe
195 200 205

Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro
210 215 220

Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser
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Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile
245 250 255

Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe
260 265 270

Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly
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Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln
290 295 300

Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala
305 310 315 320

Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu
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Val Gln Thr

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ctg agt cca gct gtc ccc ttt tct ggg act att caa gga ggt ctc cag 159
Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Leu Gln
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Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Gly
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Thr Arg Phe Ala Val Asn Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile
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gcc ttc cac ttc aac cct cgg ttt gaa gat gga ggg tac gtg gtg tgc 303
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Ser Ser Asp Phe Lys Val Met Val Asn Gly Ile Leu Phe Val Gln Tyr
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Phe His Arg Val Pro Phe His Arg Val Asp Thr Ile Ser Val Asn Gly
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Ser Val Gln Leu Ser Tyr Ile Ser Phe Gln Asn Pro Arg Thr Val Pro
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C
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205 210 215

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Pro His Pro Ala Tyr Pro Met Pro Phe Ile Thr Thr Ile Leu Gly Gly
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His Leu Asn Pro Arg Phe Asp Glu Asn Ala Val Val Arg Asn Thr Gln
270 275 280

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Ile Asp Asn Ser Trp Gly Ser Glu Glu Arg Ser Leu Pro Arg Lys Met
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cac tgc ctc aag gtg gcc gtg gat ggt cag cac ctg ttt gaa tac tac 1071
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335 340 345

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Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro
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Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
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Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
85 90 95
Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val
100 105 110
Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe
115 120 125
His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr
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Ile Ser Phe Gln Asn Pro Arg Thr Val Pro Val Gln Pro Ala Phe Ser
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Thr Val Pro Phe Ser Gln Pro Val Cys Phe Pro Pro Arg Pro Arg Gly
165 170 175
Arg Arg Gln Lys Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile
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Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe
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Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro

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215

220

Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser
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Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe
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Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly
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Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln
290 295 300

Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala
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Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu
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Val Gln Thr
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Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro
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Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
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Ser Trp Gly Pro Glu Glu Arg Arg Thr His Met Pro Phe Gln Lys Met
85 90 95

Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val Met
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Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe His
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Arg Val Asp Thr Ile Phe Val Asn Gly Ser Val Gln Leu Ser Tyr Ile
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Ser Phe Gln Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile Thr
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Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe Ser
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Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro Met
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Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser Ile
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Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile Asn
210 215 220

Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Leu Arg Phe Asp
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Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly Ser
245 250 255

Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln Ser
260 265 270

Phe Ser Val Trp Ile Leu Cys Gly Ala His Cys Leu Lys Val Ala Val
275 280 285

Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu Pro
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Leu Gln Gly Thr Thr Lys Ser Phe Ala Gln Arg Phe Val Val Asn Phe
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Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly Ser
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Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly Met
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Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val Met
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Val Asn Gly Ile Leu Phe Val Gln Tyr Gln His Arg Val Pro Tyr His
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Leu Val Asp Thr Ile Ala Val Ser Gly Cys Leu Lys Leu Ser Phe Ile
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Thr Phe Gln Asn Ser Ala Ala Pro Val Gln His Val Phe Ser Thr Leu
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Gln Phe Ser Gln Pro Val Gln Phe Pro Arg Thr Pro Lys Gly Arg Lys
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Gln Lys Thr Gln Asn Phe Arg Pro Ala His Gln Ala Pro Met Ala Gln
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Thr Thr Ile His Met Val His Ser Thr Pro Gly Gln Met Phe Ser Thr
195 200 205

Pro Gly Ile Pro Pro Val Val Tyr Pro Thr Pro Ala Tyr Thr Ile Pro
210 215 220

Phe Tyr Thr Pro Ile Pro Asn Gly Leu Tyr Pro Ser Lys Ser Ile Met
225 230 235 240

Ile Ser Gly Asn Val Leu Pro Asp Ala Thr Arg Phe His Ile Asn Leu
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Arg Cys Gly Gly Asp Ile Ala Phe His Leu Asn Pro Arg Phe Asn Glu
260 265 270

Asn Ala Val Val Arg Asn Thr Gln Ile Asn Asn Ser Trp Gly Gln Glu
275 280 285

Glu Arg Ser Leu Leu Gly Arg Met Pro Phe Ser Arg Gly Gln Ser Phe
290 295 300

Ser Val Trp Ile Ile Cys Glu Gly His Cys Phe Lys Val Ala Val Asn
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Gly Gln His Met Cys Glu Tyr Tyr His Arg Leu Lys Asn Leu Gln Asp
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